

In the Claims

Applicants have submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts.

Please amend claims 45, 46, 59, 60 and 63-65 as indicated below.

Please add new claims 66-101.

1. (Previously Presented) A composition comprising:

- (a) a biotin conjugate comprising:
 - (i) a biotin covalently coupled to
 - (ii) a pharmacologically active chemokine; and
- (b) an anti-biotin antibody selectively bound to said biotin to form a complex.

2.-9. (Cancelled)

10. (Previously Presented) The composition of claim 1, wherein the pharmacologically active chemokine has an agonist activity.

11. (Previously Presented) The composition of claim 1, wherein the pharmacologically active chemokine has an antagonist activity.

12.-14. (Cancelled)

15. (Original) The composition of claim 1, wherein the complex has a half-life ranging from about 15 minutes to about 1 hour in the presence of supra physiological levels of biotin and an affinity constant ranging from about 1.0 to about 100.0 nanomolar.

16.-19. (Cancelled)

20. (Original) The composition of claim 1, wherein the anti-biotin antibody comprises a therapeutic agent that is a cytotoxic agent.

21. (Original) The composition of claim 1, wherein the anti-biotin antibody comprises a diagnostic agent attached thereto.

22. (Original) The composition of claim 1, wherein the anti-biotin antibody has a dual specificity.

23. (Original) The composition of claim 22, wherein the anti-biotin antibody selectively binds to a tumor cell associated antigen.

24. (Original) The composition of claim 22, wherein the anti-biotin antibody selectively binds to a viral associated antigen.

25.-33. (Cancelled)

34. (Previously Presented) A composition comprising:

- (a) a biotin conjugate comprising
 - (i) a biotin covalently coupled to
 - (ii) a chemokine having a pharmacological activity; and
- (b) a pharmaceutically acceptable carrier, wherein the pharmaceutically acceptable carrier is suitable for parenteral administration.

35.-40. (Cancelled)

41. (Previously Presented) The composition of claim 1, wherein the composition is lyophilized.

42. (Previously Presented) The composition of claim 1, further comprising a pharmaceutically acceptable carrier.

43. (Previously Presented) The composition of claim 42, wherein the pharmaceutically acceptable carrier is acceptable for a mode of delivery selected from the group consisting of:

intradermal delivery, intramuscular delivery, intraperitoneal delivery, intravenous delivery, subcutaneous delivery, and controlled release delivery.

44. (Previously Presented) The composition of claim 1, wherein the biotin is selected from the group consisting of L-biotin, D-biotin and derivative thereof.

45. (Currently Amended) The composition of claim 1, wherein the chemokine is selected from the group consisting of the chemokines RANTES, MIP-1alpha, MIP-1beta, MCP-1, MCP-2, MCP-3, MCP-4, eotaxin, eotaxin-2, TARC, MDC, MIP-3alpha, MIP-3beta, I-309, HCC-1, HCC-2, MIP-3, MIP-4, SLC, TECK, LEC, CKb-15, PTEC, IL-8, GROalpha, GRObeta, GROgamma, PF4, NAP-2, ENA-78, GCP2, IP-10, MIG, ITAC, MIP-2, CKa2, ADEC, SDF, fractakin and lympholactin of Table 1.

46. (Currently Amended) The composition of claim 1, wherein the chemokine has a carboxyl terminus and the biotin is ~~equivalent~~ covalently attached to the carboxyl terminus of the chemokine.

47. (Previously Presented) The composition of claim 1, wherein the biotin is covalently coupled to the pharmacologically active chemokine via a linker molecule.

48. (Previously Presented) The composition of claim 1, wherein the complex has a half-life ranging from about 15 minutes to about 1 hour in the presence of supra physiological levels of biotin.

49. (Previously Presented) The composition of claim 1, wherein the anti-biotin antibody has an affinity constant ranging from about 1.0 to about 100.0 nanomolar.

50. (Previously Presented) The composition of claim 1, wherein the anti-biotin antibody is selected from the group consisting of an intact antibody, and an antibody fragment.

51. (Previously Presented) The composition of claim 1, wherein the anti-biotin antibody is a human antibody or fragment thereof.

52. (Previously Presented) The composition of claim 1, wherein the anti-biotin antibody has a subclass selected from the group consisting of a IgG1 subclass, and an IgG3 subclass.

53. (Previously Presented) The composition of claim 1, wherein the anti-biotin antibody comprises a therapeutic agent attached thereto.

54. (Previously Presented) The composition of claim 1, wherein the complex has a half-life of from one day to one month in vivo.

55. (Previously Presented) The composition of claim 1, wherein the complex has a half-life of from one week to two weeks in vivo.

56.-58. (Cancelled)

59. (Currently Amended) The composition of claim 34, wherein the pharmacologically active chemokine having a pharmacological activity has an agonist activity.

60. (Currently Amended) The composition of claim 34, wherein the pharmacologically active chemokine having a pharmacological activity has an antagonist activity.

61. (Previously Presented) The composition of claim 34, wherein the composition is lyophilized.

62. (Previously Presented) The composition of claim 34, wherein the biotin is selected from the group consisting of L-biotin, D-biotin and derivative thereof.

63. (Currently Amended) The composition of claim 34, wherein the chemokine is selected from the group consisting of the chemokines RANTES, MIP-1alpha, MIP-1beta, MCP-

1, MCP-2, MCP-3, MCP-4, eotaxin, eotaxin-2, TARC, MDC, MIP-3alpha, MIP-3beta, I-309, HCC-1, HCC-2, MIP-3, MIP-4, SLC, TECK, LEC, CKb-15, PTEC, IL-8, GROalpha, GRObeta, GROgamma, PF4, NAP-2, ENA-78, GCP2, IP-10, MIG, ITAC, MIP-2, CKa2, ADEC, SDF, fractakin and lympholactin of Table 1.

64. (Currently Amended) The composition of claim 34, wherein the chemokine has a carboxyl terminus and the biotin is ~~equivalent~~ covalently attached to the carboxyl terminus of the chemokine.

65. (Currently Amended) The composition of claim 34, wherein the biotin is covalently coupled to the ~~pharmacologically active~~ chemokine having a pharmacological activity via a linker molecule.

66. (New) The composition of claim 1, wherein the chemokine is ITAC.

67. (New) The composition of claim 1, wherein the chemokine is eotaxin.

68. (New) The composition of claim 1, wherein the chemokine is MDC.

69. (New) The composition of claim 1, wherein the chemokine is MIP-3alpha.

70. (New) The composition of claim 1, wherein the chemokine is MIP-2.

71. (New) The composition of claim 1, wherein the chemokine is MIP-1beta.

72. (New) The composition of claim 1, wherein the chemokine is MCP-1.

73. (New) The composition of claim 1, wherein the chemokine is MIP-1alpha.

74. (New) The composition of claim 1, wherein the chemokine is RANTES.

75. (New) The composition of claim 1, wherein the chemokine is I-309.
76. (New) The composition of claim 34, wherein the chemokine is ITAC.
77. (New) The composition of claim 34, wherein the chemokine is eotaxin.
78. (New) The composition of claim 34, wherein the chemokine is MDC.
79. (New) The composition of claim 34, wherein the chemokine is MIP-3alpha.
80. (New) The composition of claim 34, wherein the chemokine is MIP-2.
81. (New) The composition of claim 34, wherein the chemokine is MIP-1beta.
82. (New) The composition of claim 34, wherein the chemokine is MCP-1.
83. (New) The composition of claim 34, wherein the chemokine is MIP-1alpha.
84. (New) The composition of claim 34, wherein the chemokine is RANTES.
85. (New) The composition of claim 34, wherein the chemokine is I-309.
86. (New) The composition of claim 1, wherein the chemokine is a full-length chemokine.
87. (New) The composition of claim 1, wherein the chemokine is a truncated chemokine.
88. (New) The composition of claim 1, wherein the chemokine is an elongated chemokine.

89. (New) The composition of claim 87, wherein the truncated chemokine is truncated at an amino terminus.

90. (New) The composition of claim 87, wherein the truncated chemokine is truncated at a carboxy terminus.

91. (New) The composition of claim 88, wherein the elongated chemokine is elongated at an amino terminus.

92. (New) The composition of claim 34, wherein the chemokine is a full-length chemokine.

93. (New) The composition of claim 34, wherein the chemokine is a truncated chemokine.

94. (New) The composition of claim 34, wherein the chemokine is an elongated chemokine.

95. (New) The composition of claim 93, wherein the truncated chemokine is truncated at an amino terminus.

96. (New) The composition of claim 93, wherein the truncated chemokine is truncated at a carboxy terminus.

97. (New) The composition of claim 94, wherein the elongated chemokine is elongated at an amino terminus.

98. (New) The composition of claim 10, wherein the pharmacologically active chemokine is chemokine truncated at the carboxy terminus.

99. (New) The composition of claim 11, wherein the pharmacologically active chemokine is a chemokine truncated or elongated at the amino terminus.

100. (New) The composition of claim 59, wherein the chemokine having a pharmacological activity is a chemokine truncated at the carboxy terminus.

101. (New) The composition of claim 60, wherein the chemokine having a pharmacological activity is a chemokine truncated or elongated at the amino terminus.